AMENDMENTS TO THE CLAIMS

Claims 1-106 (Canceled)

107. (Currently Amended) ~~The method of claim 102, wherein the ztnf4 receptor is the transmembrane activator and calcium-modulator and cyclophilin ligand-interactor (TACI) polypeptide, wherein the TACI polypeptide has an amino acid sequence consisting~~ **A method of inhibiting B lymphocyte proliferation in a mammal, comprising administering to the mammal a composition comprising a fusion protein that consists of a first portion and a second portion, wherein the first portion and the second portion are joined by a peptide bond, wherein the first portion of the fusion protein consists of the amino acid sequence of** amino acid residues 25 to 104 of SEQ ID NO:6 **wherein the second portion of the fusion protein is an immunoglobulin heavy chain constant region and wherein the fusion protein binds ztnf4**.

108. (Previously Presented) The method of claim 107, wherein the immunoglobulin heavy chain constant region is a human immunoglobulin heavy chain constant region.

109. (Previously Presented) The method of claim 108, wherein the human immunoglobulin heavy chain constant region is a human immunoglobulin heavy chain constant region of IgG1.

110. (Currently Amended) The method of claim 107, wherein the ~~soluble form of the ztnF4 receptor~~ **composition** comprises multimeric proteins comprising one or more polypeptide fusions.

111. (Currently Amended) The method of claim 110, wherein the ~~soluble form of the ztnF4 receptor~~ **composition** comprises dimeric proteins comprising one or more polypeptide fusions.

Claims 112–116 Withdrawn

117. (Currently Amended) ~~The method of claim 102, wherein the ztnf4 receptor is the transmembrane activator and calcium-modulator and cyclophilin ligand-interactor (TACI) polypeptide, wherein the TACI polypeptide has an amino acid sequence consisting~~ **A method of inhibiting B lymphocyte proliferation in a mammal, comprising administering to the mammal a composition comprising a fusion protein that consists of a first portion and a**

second portion, wherein the first portion and the second portion are joined by a peptide bond, wherein the first portion of the fusion protein consists of the amino acid sequence of amino acid residues 1 to 154 of SEQ ID NO:6 **wherein the second portion of the fusion protein is an immunoglobulin heavy chain constant region and wherein the fusion protein binds ztnf4**.

118. (Previously Presented) The method of claim 117, wherein the immunoglobulin heavy chain constant region is a human immunoglobulin heavy chain constant region.

119. (Previously Presented) The method of claim 118, wherein the human immunoglobulin heavy chain constant region is a human immunoglobulin heavy chain constant region of IgG1.

120. (Currently Amended) The method of claim 117, wherein the ~~soluble form of the ztnf4 receptor~~ **composition** comprises multimeric proteins comprising one or more polypeptide fusions.

121. (Currently Amended) The method of claim 120, wherein the ~~soluble form of the ztnf4 receptor~~ **composition** comprises dimeric proteins comprising one or more polypeptide fusions.

122. (New) The method of claim 107 or 117, wherein said B lymphocyte proliferation is associated with an autoimmune disease.

123. (New) The method of claim 122, wherein said autoimmune disease is systemic lupus erythematosus, myasthenia gravis, multiple sclerosis or rheumatoid arthritis.

124. (New) The method of claim 107 or 117, wherein said B lymphocyte proliferation is associated with bronchitis, emphysema or end stage renal failure.

125. (New) The method of claim 107 or 117, wherein said B lymphocyte proliferation is associated with renal disease.

126. (New) The method of claim 125, wherein said renal disease is glomerulonephritis, vasculitis, nephritis or pyelonephritis.

127. (New) The method of claim 107 or 117, wherein said B lymphocyte proliferation is associated with renal neoplasms, multiple myelomas, lymphomas, light chain neuropathy or amyloidosis.

128. (New) The method of claim 107 or 117, wherein said inhibiting B lymphocyte proliferation is associated with regulation of immune response.

129. (New) The method of claim 107 or 117, wherein said inhibiting B lymphocyte proliferation is associated with immunosuppression.

130. (New) The method of claim 129, wherein said immunosuppression is associated with graft rejection, graft versus host disease, autoimmune disease or inflammation.

131. (New) The method of claim 130, wherein said autoimmune disease is insulin dependent diabetes mellitus or Crohn's Disease.

132. (New) The method of claim 130, wherein said inflammation is associated with joint pain, swelling, anemia or septic shock.

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph at page 4, lines 19 to 26 with the following paragraph:

Within still another embodiment is a method wherein said ztnf4 activity is associated with antibody production. Within a related embodiment the antibody production is associated with an autoimmune disease. Within another related embodiment the autoimmune disease is systemic lupus ~~erythomatosis~~ **erythematosus**, myasthenia gravis, multiple sclerosis, insulin dependent diabetes mellitus or rheumatoid arthritis.

Please replace the paragraph at page 7, lines 13 to 20 with the following paragraph:

Within other embodiment the BR43x2, TACI or BCMA receptor-ligand engagement is associated with antibody production. Within a related embodiment the antibody production is associated with an autoimmune disease. Within another embodiment the autoimmune disease is systemic lupus ~~erythematosis~~ **erythematosus**, myasthenia gravis, insulin dependent diabetes mellitus, multiple sclerosis, or rheumatoid arthritis.

Please replace the paragraph at page 9, lines 5 to 26 with the following paragraph:

Within another aspect the invention provides a method for regulating B lymphocytes in a recipient in need of such B lymphocyte regulation, comprising administering to said recipient a pharmaceutically effective amount of a soluble ztnf4 receptor in a pharmaceutically acceptable vehicle. Within a related embodiment the B lymphocyte regulation is selected from the group consisting of: a) inhibition of B lymphocyte proliferation; b) inhibition of B lymphocyte activation; c) inhibition of B lymphocyte homeostasis; and d) inhibition of B lymphocyte effector function. Within another embodiment the B lymphocyte regulation is modulation of autoantibody production. Within yet another embodiment the B lymphocyte regulation is the reduction of B lymphocytes in the periphery of said recipient. Within one related embodiment the B lymphocytes are pre-pro or immature B lymphocytes. Within another embodiment the B lymphocyte regulation is associated with an autoimmune disease. Within a related embodiment the autoimmune disease is systemic lupus ~~erythematosis~~ **erythematosus**, myasthenia gravis, insulin dependent diabetes mellitus, multiple sclerosis, or rheumatoid arthritis.

Please replace the paragraph at page 10, lines 22 to 31 with the following paragraph:

Within [[in]] another aspect the invention provides a method for reducing proteinuria in a recipient in need of such reduction, comprising administering to said recipient a pharmaceutically effective amount of a soluble ztnf4 receptor in a pharmaceutically acceptable vehicle. Within one embodiment the proteinuria is stimulated by ztnf4. Within another embodiment the proteinuria is associated with an autoimmune disease. Within a related embodiment the autoimmune disease is systemic lupus ~~erythomatosis~~ **erythematosus**, myasthenia gravis, or rheumatoid arthritis.

Please replace the paragraph at page 59, lines 3 to 30 with the following paragraph:

Northern blot analysis showed ztnf4 is expressed in $CD8^+$ cells, monocytes, dendritic cells, activated monocytes. This suggests that in some autoimmune disorders, cytotoxic T-cells might stimulate B-cell production through excess production of ztnf4. Immunosuppressant proteins that selectively block the action of B-lymphocytes would be of use in treating disease. Autoantibody production is common to several autoimmune diseases and contributes to tissue destruction and exacerbation of disease. Autoantibodies can also lead to the occurrence of immune complex deposition complications and lead to many symptoms of systemic lupus ~~erythomatosis~~ **erythematosus**, including kidney failure, neuralgic symptoms and death. Modulating antibody production independent of cellular response would also be beneficial in many disease states. B cells have also been shown to play a role in the secretion of arthritogenic immunoglobulins in rheumatoid arthritis, (Korganow et al., Immunity 10:451-61, 1999). As such, inhibition of ztnf4 antibody production would be beneficial in treatment of autoimmune diseases such as myasthenia gravis and rheumatoid arthritis. Immunosuppressant therapeutics such as soluble BR43x2 that selectively block or neutralize the action of B-lymphocytes would be useful for such purposes. To verify these capabilities in BR43x2 soluble receptor polypeptides of the present invention, such BR43x2 polypeptides are evaluated using assays known in the art and described herein.

Please replace the paragraph at page 62, lines 6 to 13 with the following paragraph:

Such methods would be particularly useful where ztnf4 activity is associated with activated B lymphocytes and for treating pre-B cell or B-cell cancers. Such methods would also

be useful where ztnf4 activity is associated with antibody production. In particular, antibody production associated with autoimmune diseases such as systemic lupus ~~erythomatosis~~ **erythematosus**, myasthenia gravis or rheumatoid arthritis.